WASHINGTON DEPARTMENT OF ECOLOGY

ENVIRONMENTAL ASSESSMENT PROGRAM

FRESHWATER MONITORING UNIT

STREAM DISCHARGE TECHNICAL NOTES

MANUAL STAGE HEIGHT STATION

STATION ID: 32F060

STATION NAME: Dry Creek near Mouth

WATER YEAR: WY 2005

AUTHOR: Mitch Wallace

Introduction

Watershed Description

Dry Creek is a tributary of the Walla Walla River. The confluence is just south of the town of Lowden. Dry Creek's watershed is mainly used for dryland wheat agriculture, with only sparse forest in the headwaters. It drains the lower slopes of the Blue Mountains southeast of the town of Dixie.

Gage Location

Dry Creek near Mouth is located off of Highway 12 near the town of Lowden. The staff gage is located on the right bank, underneath the highway bridge.

Table 1.

Drainage Area (square miles)	244 (Streamstats)
Latitude (degrees, minutes, seconds)	46° 03' 46" N
Longitude (degrees, minutes, seconds)	118° 34' 31" W
Primary Gage Index Type	Staff
Secondary Gage Index Type	Tapedown from bridge

Error Analysis

Overall Rating Error Percentage	10.1

Rating Table(s)

Table 2. Rating Table Summary

Rating Table No.	3	4	5
Period of Ratings	7/30/04 to 3/27/05	3/28/05 to 5/13/05	5/14/05 to 12/29/05
Range of Ratings (cfs)	0.09 to 113	0.43 to 174	0.29 to 174
No. of Defining Measurements	7	5	3
Rating Error (%)	11.1	9.8	10.0

Rating Table No.			
Period of Ratings			
Range of Ratings (cfs)			
No. of Defining Measurements			
Rating Error (%)			

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Narrative

In late March, 2005 the rating shifted to #4 due to channel scour caused by a late-winter precipitation event. The rating shifted once again in mid-May, 2005. This shift to #5 was caused by seasonal run-off resulting in channel fill. Increased variability at this site is a result of vegetation growth and silt build up.

Discrete Flow Record

Table 3. Discrete Flow Record Summary

Number of Discrete Stage Readings	53	
Maximum Observed Stage (feet) and Date	7.96	3/28/05
Maximum Predicted Discharge (cfs) and Date	155	3/28/05
Minimum Observed Stage (feet) and Date	4.12	8/8/05
Minimum Predicted Discharge (cfs) and Date	0.30*	8/8/05
Range of Stage (feet) and Discharge (cfs)	3.84	155

Narrative

Two discharge measurements were taken, ranging from 0.60 to 28 cfs. Due to the lack of flow measurements, a large portion of the collected data has qualified as an estimate. *Unknown flow less than reported figure.

Modeled Discharge

Table 4. Model Summary

Model Type (Slope conveyance, other, none)	n/a
Range of Modeled Stage (feet)	n/a
Range of Modeled Discharge (cfs)	n/a
Valid Period for Model	n/a
Model Confidence	n/a

Surveys

Table 5. Survey Type and Date (station, cross section, longitudinal)

Type	Date
n/a	n/a